

# Preservation of Documents

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# Preservation of Documents

## 1 INTRODUCTION

This procedure is intended to be utilized by trained personnel to ensure consistency and transparency of methods employed during the preservation of document evidence received in the Questioned Documents Unit (QDU).

## 2 SCOPE

These procedures will be used by a forensic document examiner for the preservation of charred and/or liquid-soaked documents to facilitate subsequent examinations.

The particular method(s) employed in a given case will depend upon the nature of the material available for examination.

## 3 EQUIPMENT

- 150-watt tungsten halogen light, or comparable equipment
- Hand magnifier (minimum magnification, 4X)
- Stereomicroscope (minimum magnification, 6.3X), or comparable equipment
- Keyence VHX-2000E Digital Microscope, or comparable equipment
- Foster and Freeman Video Spectral Comparator (VSC), or comparable equipment
- ChemImage Hyperspectral Imager (HSI) Examiner 200 QD, or comparable equipment
- Humidity chamber
- Atomizer
- Deionized or distilled water
- Non-woven polyester sheets
- Blotter sheets large enough to cover the entire document
- Picks (e.g., dental), tongs and/or tweezers
- Bone folder or similar device
- Drying rack
- Fume hood
- 12" x 17" pan with wire screen, or comparable equipment
- Chamber vacuum sealer
- Commercial heat sealable vacuum bags
- Rigid clear polyethylene film/ pouches
- 2% gelatin solution

## 4 PROCEDURE

### 4.1 Charred Documents

- Visually examine the item(s) to determine the extent of the charring and whether the item(s) are [curled documents](#) and/or [brittle documents](#).
  - Lighting and magnification sufficient to allow fine detail should be used as needed.
- For multi-page documents, attempt to separate the pages using appropriate equipment/tools such as picks, tweezers, and/or bone folders.

#### 4.1.1 Curled Documents

- A. **Redacted**
- B. If submersion is necessary, consent from the contributor will be obtained and recorded in the communication log as this technique may affect other forensic examinations.
- C. **Redacted**
- D. Dry the submerged document(s) between two non-woven polyester sheets and blotter paper.
- Apply an object heavy enough to flatten the document(s), such as a piece of plexiglass.
- E. Once the document(s) is dry, encapsulation of the document(s) may be advisable. Encapsulate the item(s) using polyethylene film and/or heat sealable vacuum bags and the chamber vacuum sealer or heat sealer.

#### 4.1.2 Brittle Documents

- A. If the document(s) is brittle **Redacted** support the charred debris between two pieces of rigid polyethylene film.
- B. Place the document(s) into a heat sealable vacuum bag.
- C. Place the bag inside the chamber vacuum sealer and seal.
- D. In lieu of vacuum sealing, glass slides may be used to encapsulate small pieces of charred debris **Redacted**

#### 4.2 **Liquid-Soaked Documents**

- A. Visually examine the item(s) using proper lighting and magnification sufficient to allow find detail to be distinguished. Include the following in the examination records:
- Nature and condition of the document(s)
    - Visually assess if evidence is a single page or multi-page document.
    - Assess if the document(s) is soaked, damp, or dried.
  - Nature of the liquid(s)
    - Based on case documentation, assess to the extent possible if the liquid was water-based or another type of liquid such as gasoline or diesel fuel.
    - Precautions should be exercised for liquids considered chemical or biological hazards.
  - Extent of the effect from the liquid(s)

- Assess to the extent possible if the liquid caused ink damage to the writing or printing on the document(s).
- B. Preserve the document(s) according to the assessed condition(s) ([wet single-page documents](#), [wet multi-page documents](#), [dried documents](#), and/or [frozen documents](#)).
- C. Once the preservation procedure is completed and the documents are completely dry, encapsulation of the documents may be advisable. Encapsulate the items using polyethylene film and the chamber vacuum sealer or heat sealer, if necessary.

#### 4.2.1 Wet Single-Page Documents

- For wet, single-page documents, select a method such as air drying or pressing, and dry the document.

#### 4.2.2 Wet Multi-Page Documents

- For wet, multi-page documents, determine if the wet pages can be separated without additional damage. If they can, separate the pages and treat as [wet single-page documents](#).
- If the pages cannot be separated, select a drying process such as air drying or pressing and dry the document(s) as one multi-page item.

#### 4.2.3 Dried Documents

- Attempt to separate, if necessary, and flatten the pages using appropriate equipment such as bone folders, picks, and tweezers.
- Prior to or during the attempt to separate and flatten the document(s), it may be necessary to rehumidify or resubmerge the document(s). Rehumidification with appropriate fluids may be accomplished with an atomizer, humidity chamber, or both.

Redacted

#### 4.2.4 Frozen Documents

- For documents received frozen, if time permits, have the documents freeze dried and then treat the documents as [dried documents](#).
- If time does not permit freeze drying, thaw the documents and treat as wet documents (see sections [4.2.1](#) and [4.2.2](#) above).

### 4.3 Records

- Record images of the evidence using photography, scanning, and/or photocopying as appropriate.
  - Various light sources and/or filters may be used such as ultraviolet or infrared
  - Redacted

- Case records will include any printouts, photographs, drawings, observations, and/or characteristics observed during the preservation/examination process that support the findings or conclusions.

#### 4.4 Reporting

The examiner will communicate the preservation results and method of preservation. Examples of possible statements of results and methods of preservation are as follows:

- The Item 1 charred document was preserved for examination using vacuum sealing techniques.
- Attempts were made to preserve the charred pages of Item 1 using various encapsulation techniques but were met with limited success due to the size and brittle condition of the item.
- The Item 1 document was preserved for examination using air drying techniques.
- Attempts were made to separate and preserve the fused pages of Item 1 using rehydration techniques but were met with limited success due to the extremely poor condition of the item.

#### 5 LIMITATIONS

The following factors could affect the preservation process, results rendered, and may also inhibit further examinations:

- Poor condition of the item(s)  
○ Redacted
- Excessive discoloration
- Destruction of physical characteristics due to excessive heat and/or moisture  
○ Redacted

#### 6 SAFETY

Standard precautions should be followed for the handling of documents contaminated with chemical and biological materials. These documents are potentially hazardous and will be handled and processed in specifically designated areas within QDU space. QDU personnel may refer to the [FBI Laboratory Safety Manual](#) for additional guidance.

**7 REVISION HISTORY**

Revision	Issued	Changes
00	01/14/2022	Original document issued- combined procedures for Preserving Charred Documents (QD-204-06) and Preserving Liquid Soaked Documents (QD-224-04)